

CP UNDER YOUR MICROSCOPE

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You are growing your CP for your pleasure only; you like that extraordinary looks and habits? You don't like all the botanical delicacies like plucking marvelous flowers to pieces and counting the remains? Then this article will be the right inspiration for you! I do not want to show you exact botanical details, but I want you to see the perfection of even the most minute cells of your plants.

Now let us start the show. Bribe your children to lend you their microscope (which lies unused in a cupboard in their room) for a while, pinch some clear nail-polish, a new razor-blade (electrical shavers are **not** suitable!) and tweezers from the bathroom and you are ready.

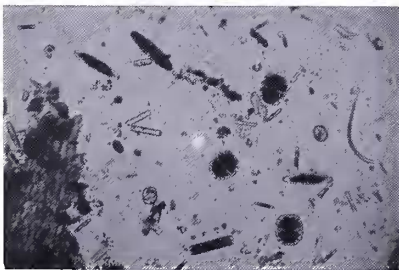
- Take a piece of *Sphagnum* and press it between your fingers until a drop of water appears and take a look at the inhabitants of it through the microscope with about 100 enlargement. By increasing the enlargement you will see the most fantastic-shaped microorganism (Slides 1, 2; if you could obtain some *Sphagnum* from a bog, there would be even more delightful forms!).
- Pull off a leaf of *Sphagnum* and look at the ingenious structure of the water-storing cells (Slide 3).

Now, after the first steps we begin to slaughter our CP:

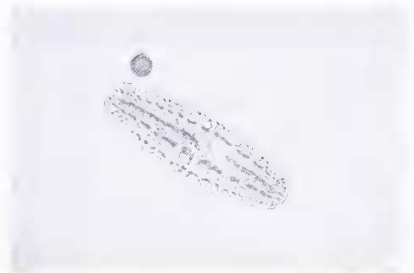
- Cut some gland-hairs of *Drosera* and look at them (in a drop of water) through the lenses (Slides 4, 5) or
- Cut an old pitcher of *Sarracenia/Nepenthes* and try to cut out some thin pieces (with the razor blade) of the pitcher rim, hood, inside . . . (Slides 7-9 show *Sarracenia leuco x oreo*) and you will observe the most wonderful and tricky details, you've never seen before.
- If you want to see the patterns of the epidermal cells spread some clear nail-polish over the leaf surface and pull it off when it has dried. You will be able to see the impressions of cells, glands and hairs of the pitcher surface (Slide 6).
- When cutting the pitchers in transverse direction you will observe the bigger cells forming the veins situated in semi-circles (especially when dyed with methylene-blue).

If you are in the possession of a stereoscope, you could even dispense with pins and razor-blades and see also the hidden secrets of *Dionaea*!

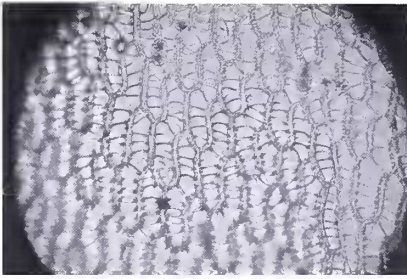
And now it is your turn to find other interesting objects (I would suppose *Utricularia*, *Genlisea*, *Polypompholyx* and pollen grains!) among your CP and prepare them in a suitable manner. (But try to leave some leaves on your plants in spite of your enthusiasm!)



Slide 1:
Some inhabitants of living *Sphagnum*
(100).



Slide 2:
One of them at 1000.



Slide 3:
A part of *Sphagnum*-leaf (note the huge water-cells between the living, green cells!) (400).



Slide 4:
Intact head of one *Drosera* gland-hair (200).



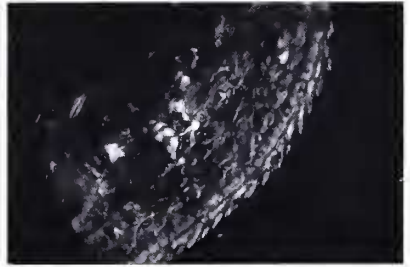
Slide 5:
Two of them shortly after digestion (200).



Slide 6:
Impression of the outer epidermis of *Sarracenia leuco x oreo* made with nail-polish (100).



Slide 7:
Vertical section through the pitcher rim of the same, note the tapered, downward pointing cells on the inner regions of the rim (50).



Slide 8:
The same section at 200.

Slide 9:
Stiff, pinlike hairs of the digestive zone inside the pitcher (pointing to the bottom of the pitcher) (200).

